Watershed Evaluations

03050108-010

(Enoree River)

General Description

Watershed 03050108-010 is located in Greenville, Spartanburg, and Laurens Counties and consists primarily of the ***Enoree River*** and its tributaries from its origin to Beaverdam Creek. The watershed occupies 167,337 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Cecil-Madison series. The erodibility of the soil (K) averages 0.27, and the slope of the terrain averages 10% with a range of 2-25%. Land use/land cover in the watershed includes: 46.5% forested land, 23.1% urban land, 18.8% agricultural land, 10.5% scrub/shrub land, 0.9% barren land, and 0.2% water.

The Enoree River originates near the City of Travelers Rest and accepts drainage from the North Enoree River, Long Branch, Beaverdam Creek, Buckhorn Creek (Buckhorn Lake), Mountain Creek (Mountain Lake, Paris Mountain State Park Lake), Cane Creek, and Princess Creek. Brushy Creek flows through the City of Greenville to enter the river next followed by Rocky Creek (Oak Grove Lake, Shannon Lake, Little Rocky Creek), Dillard Creek, Abner Creek (Vine Creek, Padgett Creek), another Little Rocky Creek, and Peters Creek. Gilder Creek (Earls Lake) originates near the City of Mauldin and is joined by Bridge Fork Creek, Little Gilder Creek, Graze Branch, Horsepen Creek, and Long Branch before flowing into the river downstream of Peters Creek. Hunter Branch enters the river next followed by Buzzard Spring Branch and Lick Creek.

Durbin Creek originates near the City of Simpsonville and accepts drainage from Howard Branch, Wilson Branch, Little Durbin Creek, and South Durbin Creek (Reedy Creek) before draining into the Enoree River. Dildane Creek flows into the river downstream of Durbin Creek and is followed by Brock Page Creek and Boggy Creek. There are several ponds (totaling 343.6 acres) and a total of 321.4 stream miles in this watershed. Paris Mountain State Park is located to the north of the City of Greenville, and all waters within the park are classified ORW. Beaverdam Creek is classified ORW from its headwaters to SR 563; an unnamed tributary to Beaverdam Creek is classified ORW from its headwaters, including the lake, to SR 22; Buckhead Creek is classified ORW from its headwaters, including Buckhorn Lake, to North Buckhorn Road; and an unnamed tributary to Mountain Creek is classified ORW from its headwaters, including Mountain Lake and Paris Mountain State Park Lake, to Mountain Creek. The remaining streams in the watershed are classified FW. There is a Heritage Trust Preserve along the Enoree River just upstream of its confluence with the North Enoree River.

Water Quality

Station #	Type	Class	Description
BE-001	P	FW	ENOREE RIVER AT UNNUMBERED ROAD W OF U.S. 25, N OF TRAVELERS REST
B-797	BIO	FW	ENOREE RIVER AT PINE LOG FORD RD., 2ND CROSSING ABOVE SC 253 BRIDGE
BE-039	S	FW	BEAVERDAM CREEK AT ROAD 1967

B-796	BIO	FW	BEAVERDAM CREEK AT SC 253
B-795	BIO	FW	BUCKHORN CREEK AT SR 562
B-186	S	FW	MOUNTAIN CREEK AT S-23-335
BE-008	BIO	FW	MOUNTAIN CREEK AT SR 279
B-192	P	FW	PRINCESS CREEK AT SUBER MILL RD, SECOND ROAD S OF US 29 OFF S-23-540
BE-015	S	FW	ENOREE RIVER AT COUNTY ROAD 164
BE-035	S/BIO	FW	BRUSHY CREEK AT HOWELL RD (S-23-273), APPROX. 5 MI NE OF GREENVILLE
BE-009	S/BIO	FW	BRUSHY CREEK AT S-23-164
BE-007	S/BIO	FW	ROCKY CREEK AT BATESVILLE BRIDGE, 1 MI ABOVE CONFL. WITH ENOREE R.
B-792	BIO	FW	ABNER CREEK AT BENNETTS RIDGE RD.
BE-017	P	FW	ENOREE RIVER AT SC 296, 7.5 MI NE OF MAULDIN
BE-040	S	FW	GILDER CREEK AT SC 14, ABOVE GILDERS CREEK PLANT
B-241	S	FW	GILDER CREEK AT S-23-142, 2.75 MI ENE OF MAULDIN
B-793	BIO	FW	HORSEPEN CREEK AT SR 145
BE-020	S/BIO	FW	GILDER CREEK AT S-23-143, 1/4 MI ABOVE CONFLUENCE WITH ENOREE RIVER
BE-018	S/BIO	FW	ENOREE RIVER AT S-30-75
BE-019	BIO	FW	ENOREE RIVER AT SC 418
B-037	S	FW	ENOREE RIVER AT S-42-118, SW OF WOODRUFF
B-038	S	FW	LICK CREEK AT S-42-118, 1.25 MI SW WOODRUFF
B-035	S	FW	DURBIN CREEK ON S-23-160, 3 MI E OF SIMPSONVILLE
B-097	P	FW	DURBIN CREEK AT SC 418
BE-022	BIO	FW	DURBIN CREEK AT SC 101
B-040	W	FW	ENOREE RIVER AT S-30-112

Enoree River -There are eight monitoring sites along this section of the Enoree River. At the furthest upstream site ***(BE-001)***, aquatic life uses are not supported due to occurrences of zinc in excess of the aquatic life acute standards, including 18 very high concentrations of zinc. The source of the zinc is contaminated groundwater discharging to the river. The contamination originates from the site currently operated by South Atlantic Galvanizing. An initial attempt at groundwater recovery consisted of the installation of a sump pump at a site where groundwater discharge created a spring. The recovered groundwater was pumped back to the facility and used as process water in their production operation. In February of 2001 it was concluded that the amount of groundwater being reprocessed was inadequate to achieve standards compliance in the stream. Additional remediation is planned. A very high concentration of chromium was measured in water in 1998. There is also a significant decreasing trend in pH. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. P,P'DDT and metabolites of DDT(P,P'DDE and P,P'DDD) were detected in the 1995 sediment sample. Although the use of DDT was banned in 1973, it is very persistent in the environment. Recreational uses are not supported at this site due to fecal coliform bacteria excursions. In addition, there was a significant increasing trend in fecal coliform bacteria concentrations.

At the next site downstream ***(B-797),*** aquatic life uses are partially supported based on macroinvertebrate community data. Further downstream ***(BE-015),*** aquatic life uses are fully supported. There is a significant increasing trend in pH. A significant increasing trend in dissolved oxygen concentration and a significant decreasing trend in five-day biochemical oxygen demand suggest improving conditions for these parameters. Recreational uses are not supported at this site due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria concentrations.

At the next downstream site ***(BE-017),*** aquatic life uses are not supported due to occurrences of

copper in excess of the aquatic life acute standards. There is a significant increasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are not supported at this site due to fecal coliform bacteria excursions; however, a significant decreasing trend in fecal coliform bacteria concentrations suggests improving conditions for this parameter. Aquatic life uses are partially supported based on macroinvertebrate community data at the next site downstream ***(BE-018).*** A significant increasing trend in dissolved oxygen concentration and a significant decreasing trend in five-day biochemical oxygen demand suggest improving conditions for these parameters. Recreational uses are not supported at this site due to fecal coliform bacteria excursions.

Further downstream ***(BE-019),*** aquatic life uses are partially supported based on macroinvertebrate community data. At the next site downstream ***(B-037),*** aquatic life uses are fully supported. There is a significant decreasing trend in pH. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Recreational uses are not supported at this site due to fecal coliform bacteria excursions. At the furthest downstream site ***(B-040),*** aquatic life uses are fully supported, but recreational uses are partially supported due to fecal coliform bacteria excursions.

Beaverdam Creek - There are two monitoring sites along Beaverdam Creek. At the upstream site ***(BE-039),*** aquatic life uses are fully supported. There is a significant decreasing trend in pH. A significant increasing trend in dissolved oxygen concentration and significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are not supported at this site due to fecal coliform bacteria excursions. In addition, there is a significant increasing trend in fecal coliform bacteria concentrations. At the downstream site ***(B-796),*** aquatic life uses are partially supported based on macroinvertebrate community data.

Buckhorn Creek (B-795) - Aquatic life uses are partially supported based on macroinvertebrate community data.

Buckhorn Lake - In an effort to provide access for swimming and fishing, aquatic herbicides were applied in 1994.

Mountain Creek - There are two monitoring sites along Mountain Creek. Aquatic life uses are fully supported at the upstream site ***(B-186),*** and a significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria concentrations. At the downstream site ***(BE-008)***, aquatic life uses are partially supported based on macroinvertebrate community data.

Mountain Lake - In an effort to provide access for swimming and fishing, 100 triploid grass carp were stocked in Mountain Lake in 2001.

Princess Creek (B-192) - Aquatic life uses are not supported due to occurrences of zinc in excess of the aquatic life acute standards, including a very high concentration of zinc measured in 1995. A very high concentration of lead was measured in 1996. There is also a significant increasing trend in pH. In sediment, a very high concentration of chromium was measured in the 1999 sample and P,P'DDT was detected in the 1996 sample. Although the use of DDT was banned in 1973, it is very persistent in the environment. Recreational uses are not supported due to fecal coliform bacteria excursions. In addition, there was a significant increasing trend in fecal coliform bacteria concentrations.

Brushy Creek - There are two monitoring sites along Brushy Creek. At the upstream site ***(BE-035),*** aquatic life uses are partially supported based on macroinvertebrate community data. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Recreational uses are not supported at this site due to fecal coliform bacteria excursions. At the furthest downstream site ***(BE-009)***, aquatic life uses are also partially supported based on macroinvertebrate community data. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Recreational uses are not supported at this site due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria concentrations. A total maximum daily load (TMDL) has been developed for both BE-035 and BE-009 to address these impairments (see Watershed Protection and Restoration Strategies below).

Rocky Creek (BE-007) - Aquatic life uses are partially supported based on macroinvertebrate community data. A significant increasing trend in dissolved oxygen concentration and a significant decreasing trend in five-day biochemical oxygen demand suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions.

Abner Creek (B-792) - Aquatic life uses are partially supported based on macroinvertebrate community data.

Horsepen Creek (B-793) - Aquatic life uses are partially supported based on macroinvertebrate community data.

Gilder Creek - There are three monitoring sites along Gilder Creek. Recreational uses are not supported at any site due to fecal coliform bacteria excursions that were compounded by a significant increasing trend in fecal coliform bacteria concentrations. Aquatic life uses are fully supported at the upstream site ***(BE-040),*** and a significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. At the next site downstream ***(B-241),*** aquatic life uses are also fully supported. There is a significant increasing trend in pH. A significant increasing trend in dissolved oxygen concentration and significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. At the furthest downstream site ***(BE-020),*** aquatic life uses are partially supported based on macroinvertebrate community data. There is a

significant increasing trend in pH. A significant increasing trend in dissolved oxygen concentration and a significant decreasing trend in five-day biochemical oxygen demand suggest improving conditions for these parameters.

Lick Creek (B-038) - Aquatic life uses are fully supported. A significant increasing trend in dissolved oxygen concentration and a significant decreasing trend in five-day biochemical oxygen demand suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions.

Durbin Creek - There are three monitoring sites along Durbin Creek. Aquatic life uses are fully supported at the upstream site ***(B-035).*** A significant increasing trend in dissolved oxygen concentration and significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are not supported at this site due to fecal coliform bacteria excursions. At the next site downstream ***(B-097),*** aquatic life uses are fully supported. There is a significant decreasing trend in pH. A significant increasing trend in dissolved oxygen concentration and a significant decreasing trend in five-day biochemical oxygen demand suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria concentrations. At the furthest downstream site ***(BE-022),*** aquatic life uses are fully supported based on macroinvertebrate community data.

Natural Swimming Areas

FACILITY NAME	***PERMIT #***
RECEIVING STREAM	***STATUS***
PARIS MOUNTAIN STATE PARK LAKE	23-N05
MOUNTAIN CREEK TRIBUTARY	ACTIVE

NPDES Program

Active NPDES Facilities

RECEIVING STREAM	***NPDES#***
FACILITY NAME	***TYPE***
PERMITTED FLOW @ PIPE (MGD)	***LIMITATION***
ENOREE RIVER	SC0045802
CITY OF WOODRUFF	MINOR DOMESTIC
PIPE #: 001 FLOW: 0.7	EFFLUENT
ENOREE RIVER	SCG250062
POLYTECH INC.	MINOR INDUSTRIAL
PIPE #: 001 FLOW: M/R	EFFLUENT
ENOREE RIVER	SC0038229
NATIONAL STARCH & CHEMICAL CO.	MAJOR INDUSTRIAL
PIPE #: 002 FLOW: 0.12	WATER QUALITY
WQL FOR BOD5,DO,TRC,NH3N	

ENOREE RIVER	SC0002496
INMAN MILLS/RAMEY PLANT	MINOR INDUSTRIAL
PIPE #: 001 FLOW: 0.05	WATER QUALITY
WQL FOR BOD5,DO,TRC,NH3N	
ENOREE RIVER	SC0024309
WCRSA/TAYLORS AREA PLANT	MAJOR DOMESTIC
PIPE #: 001 FLOW: 7.5	WATER QUALITY
WQL FOR BOD5,DO,TRC,NH3N	
TO BE ELIMINATED (TIED INTO WCRSA/PELHAM PLT	
ENOREE RIVER	SC0033804
WCRSA/PELHAM PLANT WWTP	MAJOR DOMESTIC
PIPE #: 001 FLOW: 7.5 (EXPANDING TO 22.5MGD)	WATER QUALITY
WQL FOR BOD5,DO,TRC,NH3N	
SCHEDULED FOR EXPANSION (INCORPORATING TAYLORS PLT)	
ENOREE RIVER	SC0040525
WCRSA/GILDER CREEK	MAJOR DOMESTIC
PIPE #: 001 FLOW: 4.0	WATER QUALITY
PIPE #: 001 FLOW: 5.0, 8.0, 12.0 (PROPOSED)	WATER QUALITY
WQL FOR BOD5,DO,TRC,NH3N	
ENOREE RIVER	SC0042056
GREENWOOD HOLDING CORP./GREER	MINOR INDUSTRIAL
PIPE #: 001 FLOW: 0.03	WATER QUALITY
WQL FOR BOD5,DO	
ENOREE RIVER TRIBUTARY	SC0026662
BUCK-A-ROO RANCH INC.	MINOR DOMESTIC
PIPE #: 001 FLOW: 0.0101	WATER QUALITY
WQL FOR TRC,NH3N	
BEAVERDAM CREEK TRIBUTARY	SC0024040
WCRSA/COACHMAN ESTATES	MINOR DOMESTIC
PIPE #: 001 FLOW: 0.025	WATER QUALITY
WQL FOR BOD5,DO,TRC,NH3N	
MOUNTAIN CREEK	SC0034398
ALTAMONT FOREST	MINOR DOMESTIC
PIPE #: 001 FLOW: 0.0124	WATER QUALITY
WQL FOR TRC,NH3N	
MOUNTAIN CREEK	SCG250097
MORTON INTERNATIONAL, INC.	MINOR INDUSTRIAL
PIPE #: 001 FLOW: M/R	EFFLUENT
PRINCESS CREEK	SCG250047
CLIFFSTAR CORP./GREER	MINOR INDUSTRIAL
PIPE #: 001 FLOW: M/R	EFFLUENT
PRINCESS CREEK	SC0042633
EXIDE/GENERAL BATTERY CORP.	MINOR INDUSTRIAL
PIPE #: 001 FLOW: M/R	EFFLUENT
PRINCESS CREEK	SC0047988
TEXTRON/GREER GROUNDWATER TRT. SYS.	MINOR INDUSTRIAL
PIPE #: 001 FLOW: M/R	EFFLUENT

BRUSHY CREEK	SCG250166
LIBERTY LIFE INSURANCE CO.	MINOR INDUSTRIAL
PIPE #: 001 FLOW: 0.03	EFFLUENT
ROCKY CREEK TRIBUTARY	SCG250061
NYCOIL COMPANY/DM DIV.	MINOR INDUSTRIAL
PIPE #: 001 FLOW: M/R	EFFLUENT
ROCKY CREEK TRIBUTARIES	SC0003484
GE/GREENVILLE GAS TURBINE PLT	MINOR INDUSTRIAL
PIPE #: 001 FLOW: 0.45	EFFLUENT
PIPE #: 010 FLOW: M/R	EFFLUENT
PIPE #: 011 FLOW: M/R	EFFLUENT
VINE CREEK	SCG730042
HANSON AGGREGATE/PELHAM QUARRY	MINOR INDUSTRIAL
PIPE #: 001 FLOW: M/R	EFFLUENT
PADGETT CREEK	SC0047350
SSSD/HIGHWAY 101 BUSINESS PARK	MINOR DOMESTIC
PIPE #: 001 FLOW: 0.03-0.04	WATER QUALITY
WQL FOR BOD5,DO,TRC; NH3N IN SUMMER & WINTER	
BRIDGE FORK CREEK	SC0038016
METROMONT MATERIALS/MAULDIN	MINOR INDUSTRIAL
PIPE #: 001 FLOW: 0.002	EFFLUENT
DURBIN CREEK	SC0040002
WCRSA/DURBIN CREEK PLT	MAJOR DOMESTIC
PIPE #: 001 FLOW: 3.3	WATER QUALITY
WQL FOR BOD5,DO,TRC,NH3N	
DURBIN CREEK	SCG250117
PARA-CHEM SOUTHERN, INC.	MINOR INDUSTRIAL
PIPE #: 001 FLOW: M/R	EFFLUENT
LITTLE ROCKY CREEK	SCG130007
BROCKMAN CATFISH FARM	MINOR INDUSTRIAL
PIPE #: 001 FLOW: 0.1	WATER QUALITY
WQL FOR BOD5,DO	

Nonpoint Source Management Program

Camp Facilities

FACILITY NAME/TYPE	***PERMIT #***
RECEIVING STREAM	***STATUS***
CAMP BUCKHORN/RESIDENT	23-305-0127
BUCKHORN CREEK	ACTIVE

Land Disposal Activities

Landfill Facilities

LANDFILL NAME *FACILITY TYPE*	*PERMIT #* *STATUS*
ENOREE SANITARY LANDFILL DOMESTIC	231001-1101 (231001-1201, CWP-040) CLOSED
ENOREE C/D LANDFILL DOMESTIC	DWP-088 (231001-1201, CWP-040) CLOSED
ENOREE LANDFILL DOMESTIC	231001-1102 (231001-1201, CWP-040) ACTIVE
R. FALCON LANDFILL DOMESTIC	302900-1301 --------
GENERAL ELECTRIC INDUSTRIAL	IWP-232 (SCD049126097) --------
GENERAL ELECTRIC CONSTRUCTION	233321-1201 (CWP-035) --------
STEELE HEDDLE INDUSTRIAL	IWP-171 (SCD002267490) --------
BAHAN MACHINE & FOUNDRY CO., INC. INDUSTRIAL	IWP-008 (SCD987566767) --------

Land Application Sites

LAND APPLICATION SYSTEM *FACILITY NAME*	*ND#* *TYPE*
SPRAYFIELD WCRSA/DURBIN CREEK PLANT	SC0040002 DOMESTIC

Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
PELHAM STONE CO. PELHAM QUARRY	0431-83 GRANITE
COGDILL & LAWSON COGDILL & LAWSON MINE	0875-83 SAND (RIVER DREDGE)
BROWN BROWN'S GENERAL PERMIT MINE	1191-83 SAND/CLAY, TOPSOIL
BROWN #2 BROWN SAND MINE #2	0861-59 SAND

Growth Potential

There is a high potential for residential, commercial, and industrial growth in this watershed, which contains the eastern portion of the greater Greenville area, a portion of the City of Greer, and the Cities of Travelers Rest, Mauldin, Fountain Inn, Simpsonville, and Woodruff. The expansion of the Greenville-Spartanburg Airport and highway improvements around the airport and connecting Greenville to the City of Greer and on to the City of Spartanburg will stimulate continued industrial growth between S.C. Hwy. 101, S.C. Hwy. 417, the Enoree River, and S.C. Hwy. 14. Future industrial development will be prevalent along I-385. The City of Woodruff should also experience industrial, commercial, and residential growth.

The area to the north of the City of Greenville is effectively excluded from development by residing in the Paris Mountain State Park. Through the initiative of the Friends of Paris Mountain, the Greenville Water System has recently donated an additional 260 additional acres to the Park Service. This urban wilderness area is limited to low-impact uses (hiking and trailside camping).

Watershed Protection and Restoration Strategies

Total Maximum Daily Loads (TMDLs)

A total maximum daily load (TMDL) for fecal coliform has been developed for Brushy Creek, a tributary of the Enoree River, which flows through the City of Greenville. Levels of fecal coliform bacteria can be elevated in water bodies as the result of both point and nonpoint sources of pollution. Between 1991 and 1995, 95% of the samples collected at station BE-035 and 70% of samples collected at station BE-009 exceeded the 400 colonies/100ml standard. Targeting urban land for reduction of bacteria is the most effective strategy for this watershed.

A target level of bacteria of 175 colonies/100mlwas established. This translates to an urban bacteria-loading reduction of 73% at BE-009 and an urban bacteria-loading reduction of 89% at BE-035. Forested lands are not targeted for reduction, as there are currently no acceptable means of reducing fecal coliform sources within that land use.

There are several tools available for implementing this TMDL, including Nonpoint Source (NPS) pollution outreach activities and materials and coverage under Greenville County's stormwater permit. SCDHEC will continue to monitor water quality in Brushy Creek to evaluate the effectiveness of these measures.

Funding for TMDL implementation activities is currently available. For more information, see the Bureau of Water web page www.scdhec.net/water or call the Watershed Program at (803) 898-4300.

Special Projects

Urban Watershed Protection and Enhancement through Stewardship and Education

The objective of this project, funded by a USEPA Section 319 grant of the Clean Water Act and currently being implemented by Clemson University, is to develop stewardship of urban-rural watersheds located in two major metropolitan areas of northwestern South Carolina. Princess Creek in Greenville County and Lawsons Fork Creek in Spartanburg County are targeted for the project efforts. Fecal coliform bacteria is a major concern in both watersheds. Sources of fecal coliform bacteria may be traced

to mini-farms, faulty septic systems, wild animals, or improper housing and management of family pets. It may also enter creeks when the capacity of municipal waste treatment facilities is exceeded. Exceeding treatment capacity may be due to major rainfall events adding water to the system or when population growth and waste input exceeds waste treatment capacity. This occurs in watersheds that experience rapid urban, suburban, and rural development such as the Upstate region of South Carolina.

The strategy is to develop a grass roots movement in watersheds where none presently exists, educate stakeholders and managers on water quality protection and proper watershed management. Specifically, the strategy has a monitoring program and several Community Involvement and Education objectives. Volunteer stream monitoring teams will be developed to foster stewardship in targeted watersheds. Stream teams will be developed from area schools where programs like Adopt-a Stream will be made available. Existing civic, environmental groups, and other interested citizen groups will be provided presentations to develop stewardship interests. Educational materials will be developed for the specific areas of concern that were defined by the monitoring program, and will include Farm/Home-a-Syst type materials for pollution prevention. The Stewardship group, with the direction of the lead contact and the assistance of NRCS and Conservation District personnel, will develop a community water quality newsletter, and provide water quality educational materials at existing river/water fairs and city festivals.

Scale Effects on Chemical Flux and Fecal Coliform Counts in the Enoree River Watershed

A project currently underway by Furman University is monitoring water quality in the upper Enoree River basin over a period of three years, and at different points within the watershed, to determine the effects of spatial and temporal scale, land use patterns, and landscape configuration on water quality. To assess this, several watersheds of varying size (3 km^2 to 1150 km^2) and reflecting various land uses are being sampled on a weekly or biweekly basis. Monitoring sites include two existing USGS gauging stations and an additional one that drains to Mountain Lake in Paris Mountain State Park.

Previous work suggests that watershed scale plays an important role in variations in water quality, but few studies have connected multiple water quality factors across several spatial and temporal scales. Correlation of land use, water quality change, and spatial-temporal scale may distinguish between sources of solutes and bacteria and the times of year that they are most prevalent. Such results would be important for determining how to best manage water quality.

The results of the study will be disseminated at the Roper Mountain Science Center's summer science teacher workshops in Greenville and neighboring counties. The data will also be used in various science classes at Furman University.